# Sunscreen Lab

*Discover how sunscreen protects us from the sun's ultraviolet (UV) rays.*

**Kit contains:**

- 12 UV Color Changing Beads
- 3 Chenille Stems (pipe cleaners)
- 1 Sunscreen Lotion Packet
- 3 Zip-Top Bags

**You will need:** your family's sunscreen, scratch paper, a pen or pencil, and a stopwatch (optional).

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In this lab, you will test how well different sunscreens protect against the sun's rays of ultraviolet (UV) radiation. The UV-reactive beads go from clear to color when exposed to UV light.

# INSTRUCTIONS

**Step 1.** Create 3 test subjects. Thread 4 UV beads onto each of your chenille stems (pipe cleaners).

Bend and twist them into 3 creatures. This example shows little people with bead hands and feet, but you can use your imagination! Be sure that the beads are visible, not covered by fluff.

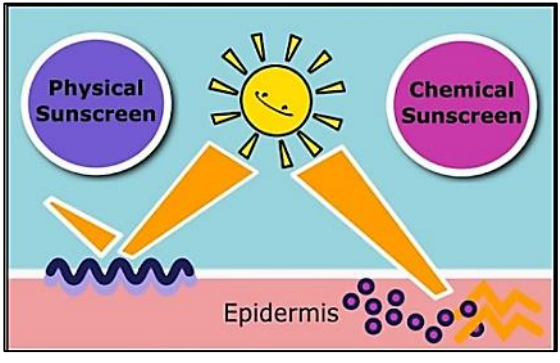
**Step 2.** Make labels for your 3 tests: Control (no sunscreen); SPF 30 (included in this kit); and the sun protection factor of your family's sunscreen. Place a label and test subject in each bag.

**Step 3.** Wipe a small amount of the sunscreen lotion from the packet all over the front of the SPF 30 bag. Use your family's sunscreen (preferably a different SPF) on the second bag. The sunscreen should cover the whole side of the bag but not be overly thick. Leave the control bag plain.

**Step 4.** Place all bags out in the sun for 30 seconds. Observe as the beads change color (or not). What do you notice? Does the sunscreen work? Do the beads protected by sunscreens with different SPFs look different after being exposed to the sun? Repeat this experiment on a cloudy day, too!

# HOW DOES SUNSCREEN WORK?

There are two types of sunscreens; chemical and physical. With physical sunscreens, minerals sit on top of the skin, reflecting the sun's rays away from your body. Chemical sunscreens go into the skin's outer layer and then break up the sun's rays as they come in contact with your skin. The chemical bonds absorb ultraviolet light from the sun and then break them apart.

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Sunscreen lotions you purchase at the store can have physical sunscreens, chemical sunscreens, or both!